

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

encrypting a plurality of non-volatile storage regions, each being encrypted using a different encryption key from a set of encryption keys;

making a first subset of the encryption keys available to a first user thereby granting the first user access to a corresponding first subset of non-volatile storage regions, the first subset of the encryption keys ~~consisting of one~~ including a plurality, ~~or all~~ of the encryption keys; ~~[[and]]~~

making a second subset of the encryption keys available to a second user thereby granting the second user access to a corresponding second subset of non-volatile storage regions, the second subset ~~consisting of one~~, of the encryption keys including a plurality, ~~or all~~ of the encryption keys~~[[.]]~~;

generating a first private-public encryption key pair and a second private-public encryption key pair;

making the first private key available only to the first user and the second private key available only to the second user; and

encrypting the first subset of the encryption keys using the first public encryption key, and the second subset of the encryption keys using the second public encryption key.

2. (Canceled)

3. (Currently Amended) The method of Claim ~~[[2]]~~ 1, further comprising:

storing the first private key and the second private key in a secure memory unit;

protecting access to the first private key with a first authentication token, the first authentication token being known only to the first user; and

protecting access to the second private key with a second authentication token, the second authentication token being known only to the second user.

4. (Original) The method of Claim 3, further comprising:

requesting an authentication token from a user attempting to access one or more of the non-volatile storage regions;

authenticating the user, if the user's authentication token matches one of the authentication tokens used to protect access to one of the private keys;

decrypting, with the secure encryption module using the authenticated user's private key, a corresponding subset of encryption keys, in response to authenticating the user; and

decrypting a corresponding subset of non-volatile storage regions, thereby making the corresponding subset of non-volatile storage regions available to the authenticated user.

5. (Original) The method of Claim 3, wherein the authentication tokens are selected from the group consisting of: passwords, fingerprints signatures, voice signatures, retina signatures, and secure access devices.

6. (Original) The method of Claim 4, wherein the encrypting and decrypting the plurality of non-volatile storage regions are performed using full-disk encryption software.

7. (Original) The method of Claim 1, wherein one of the non-volatile storage regions is adapted to store an operating system and data common to the first user and to the second user.

8. (Original) The method of Claim 1, wherein one of the non-volatile storage regions is adapted to store user-specific data of the first user.

9. (Original) The method of Claim 1, wherein one of the non-volatile storage regions is adapted to store user-specific data of the second user.

10. (Original) The method of Claim 1, wherein the non-volatile storage regions are chosen from the group consisting of: volumes, disks, partitions, and folders/directories.

11. (Currently Amended) An apparatus comprising:

one or more processors;

a memory accessible by the one or more processors;

a plurality of non-volatile storage regions accessible by the one or more processors;

an encryption unit adapted to encrypt the plurality of non-volatile storage regions, each with a different encryption key selected from a set of encryption keys;

wherein a first subset of the encryption keys is made available to a first user thereby granting the first user access to a corresponding first subset of non-volatile storage regions, the first subset of the encryption keys ~~consisting of one~~, including a plurality, ~~or all~~ of the encryption keys; and

wherein a second subset of the encryption keys is made available to a second user thereby granting the second user access to a corresponding second subset of non-volatile storage regions, the second subset ~~consisting of one~~, of the encryption keys including a plurality, ~~or all~~ of the encryption keys[.]; and

a secure encryption module adapted to:

generate a first private-public encryption key pair and a second private-public encryption key pair;

make the first private key available only to the first user and the second private key available only to the second user; and
encrypt the first subset of the encryption keys using the first public encryption key, and the second subset of the encryption keys using the second public encryption key.

12. (Canceled)

13. (Currently Amended) The apparatus of Claim [[12]] 11, wherein the secure encryption module is further adapted to:

store the first private key and the second private key;

protect access to the first private key with a first authentication token, the first authentication token being known only to the first user; and

protect access to the second private key with a second authentication token, the second authentication token being known only to the second user.

14. (Original) The apparatus of Claim 13,

wherein the secure encryption module is further adapted to:

request an authentication token from a user attempting to access one or more of the non-volatile storage regions,

authenticate the user, if the user's authentication token matches one of the authentication tokens used to protect access to one of the private keys, and

decrypt, using the authenticated user's private key, a corresponding subset of encryption keys, in response to authenticating the user, and

wherein the encryption unit is further adapted to decrypt a corresponding subset of non-volatile storage regions, thereby making the corresponding subset of non-volatile storage regions available to the authenticated user.

15. (Original) The apparatus of Claim 13, wherein the authentication tokens are selected from the group consisting of: passwords, fingerprints signatures, voice signatures, retina signatures, and secure access devices.
16. (Original) The apparatus of Claim 14, wherein the encryption unit comprises full-disk encryption software.
17. (Original) The apparatus of Claim 11, wherein one of the non-volatile storage regions is adapted to store an operating system and data common to the first user and to the second user.
18. (Original) The apparatus of Claim 11, wherein one of the non-volatile storage regions is adapted to store user-specific data of the first user.
19. (Original) The apparatus of Claim 11, wherein one of the non-volatile storage regions is adapted to store user-specific data of the second user.
20. (Original) The apparatus of Claim 11, wherein the non-volatile storage regions are chosen from the group consisting of: volumes, disks, partitions, and folders/directories.
21. (Currently Amended) A computer program product stored on a computer operable medium, the computer operable medium containing instructions for execution by a computer, which, when executed by the computer, cause the computer to implement a method comprising:
- ~~means for~~ encrypting a plurality of non-volatile storage regions, each non-volatile storage region being encrypted using a different encryption key from a set of encryption keys;
- ~~means for~~ making a first subset of the encryption keys available to a first user thereby granting the first user access to a corresponding first subset of non-

volatile storage regions, the first subset of the encryption keys ~~consisting of one,~~
including a plurality, or all of the encryption keys; [[and]]

~~means for making a second subset of the encryption keys available to a second user thereby granting the second user access to a corresponding second subset of non-volatile storage regions, the second subset consisting of one, of the~~
encryption keys including a plurality, or all of the encryption keys[[.]];

generating a first private-public encryption key pair and a second private-public encryption key pair;

making the first private key available only to the first user and the second private key available only to the second user; and

encrypting the first subset of the encryption keys using the first public encryption key and the second subset of the encryption keys using the second public encryption key.

22. (Canceled)

23. (Currently Amended) The computer program product of Claim [[22]] 21, wherein the method further comprising: comprises:

~~means for~~ storing the first private key and the second private key;

~~means for~~ protecting access to the first private key with a first authentication token, the first authentication token being known only to the first user; and

~~means for~~ protecting access to the second private key with a second authentication token, the second authentication token being known only to the second user.

24. (Currently Amended) The computer program product of Claim 23, wherein the method further comprising: comprises:

~~means for~~ requesting an authentication token from a user attempting to access one or more of the non-volatile storage regions;

~~means for~~ authenticating the user, if the user's authentication token matches one of the authentication tokens used to protect access to one of the private keys;

~~means for~~ decrypting, using the authenticated user's private key, a corresponding subset of encryption keys, in response to authenticating the user; and

~~means for~~ decrypting a corresponding subset of non-volatile storage regions, thereby making the corresponding subset of non-volatile storage regions available to the authenticated user.

25. (Original) The computer program product of Claim 23, wherein the authentication tokens are selected from the group consisting of: passwords, fingerprints signatures, voice signatures, retina signatures, and secure access devices.

26. (Currently Amended) The computer program product of Claim 24, wherein the ~~means for~~ encrypting and the ~~means for~~ decrypting the plurality of non-volatile storage regions ~~comprises~~ are performed using full-disk encryption software.

27. (Original) The computer program product of Claim 21, wherein one of the non-volatile storage regions is adapted to store an operating system and data common to the first user and the second user.

28. (Original) The computer program product of Claim 21, wherein one of the non-volatile storage regions is adapted to store user-specific data of the first user.

29. (Original) The computer program product of Claim 21, wherein one of the non-volatile storage regions is adapted to store user-specific data of the second user.

30. (Original) The computer program product of Claim 21, wherein the non-volatile storage regions are chosen from the group consisting of: volumes, disks, partitions, and folders/directories.